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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,637	01/15/2002	Richard Peter Glover	302/1/013	5754

7590 10/07/2002
Richard M Goldberg
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Hackensack, NJ 07801

EXAMINER

IMAM, ALI M

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 10/07/2002

#5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/869,637

Applicant(s)

GLOVER ET AL.

Examiner

Ali Imam

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/15/02 (Pre-Amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The corrected or substitute drawing was received on 01/15/02 in regard to Fig. 3. The examiner approves this drawing change.
2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.
4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

Art Unit: 3737

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-3, 5, 6, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA).

In regard to claim 1, AAPA teaches an IVUS system (1) comprising: a catheter (3) obviously having an ultrasonic transducer array mounted at least near a distal end thereof; a catheter interface module (4) connected to a proximal end of the catheter; a display monitor (6); a control device (7) for controlling the system; and a signal processing data entry and data storage device (9) for processing and storing data derived from energization of the ultrasonic transducer array to output a signal to the display monitor (12) in order to display an image of an interior of a patient's body (page 3, line 20 - page 4, line 10; also see Fig. 1 below).

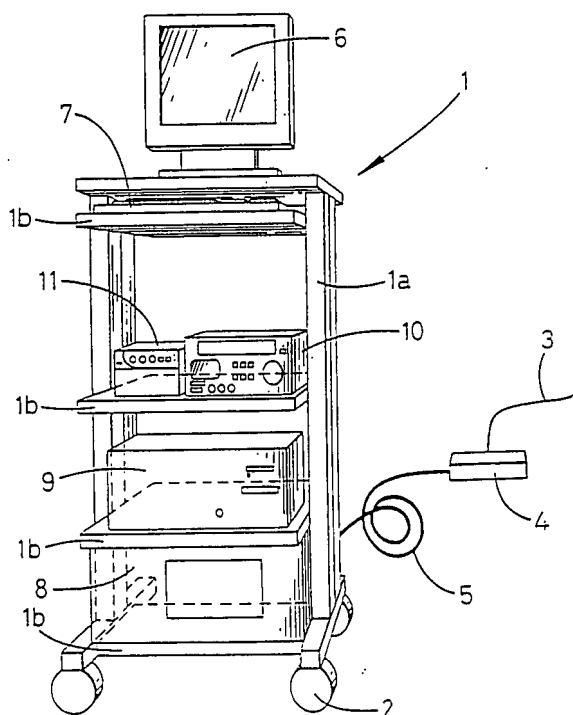


FIG. 1

The IVUS systems are used with patients usually lying on a bed so that the addition feature of the bed is also obviously present in the system. According to the prior art Fig. 1, the catheter interface module, the display monitor and the control device are adapted to be located adjacent to the bed. It would have been obvious to an ordinary skill in the art, at the time the invention was made to adequately position the signal processing data entry and data storage device remotely from the bed at a sufficient distance to enable a clear space around the bed.

In regard to claim 2, it would have been obvious to an ordinary skill in the art, at the time the invention was made to know that the power distribution unit (8), the video recorder (10) and the video printer (11) as disclosed by AAPA (see Fig. 1) are also adapted to be located remotely from the bed.

In regard to claim 3, the display monitor disclosed in AAPA (see Fig. 1 above) comprises a flat screen monitor.

In regard to claims 5 and 6, it is known and common practice to provide additional imaging means while using a catheter in order to accurately locate the catheter in side a body. Therefore, it would have been obvious to an ordinary skill in the art, at the time the invention was made to use the conventional IVUS system as illustrated by AAPA with an additional ultrasound imaging system or an X-ray imaging system.

In regard to claim 8, the mere integration of the display monitor to the catheter interface module does not go beyond the ordinary skills of an artisan in the art of IVUS in the course of normal practice. Therefore, it would have been obvious to mount the display monitor on the catheter interface module in order to avail proven technology.

In regard to claims 9 and 10, AAPA meets all the claimed structure as set forth above. The method recited in claims 9 and 10 concerning the steps of locating the catheter interface module, the signal processing data and the video printer are obviously met by the disclosure.

8. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Knoche (DE 43 16 643).

In regard to claim 4, AAPA teaches all the limitations of the claimed subject matter (see Fig. 1 above) except for mentioning specifically that the control device incorporates a device to enable control instructions to be given by voice and that it incorporates a voice recognition device for accepting and implementing those instructions.

Knoche teaches an IVUS system that includes a voice recognition unit/speech synthesizer to accept verbal confirmation data and recognizes such data as a command (see page 4, line 20 - page 5, line 7 of the English translation of DE 43 16 643). Knoche further teaches that this verbal confirmation increases the reliability of the operating unit of the IVUS system.

Knoche is evidence that one of ordinary workers in the art of IVUS would find a motivation or suggestion to use a voice recognition unit.

Therefore, it would have been obvious to an ordinary skill in the art, at the time the invention was made to provide the IVUS system of AAPA with the voice recognition unit of Knoche in order to increase the reliability of the operating unit of the IVUS system.

In regard to claim 7, AAPA teaches all the limitations of the claimed subject matter (see Fig. 1 above) except for mentioning specifically that the control device includes an infra-red remote control device.

Art Unit: 3737

Knoche teaches an IVUS system that includes an infra-red remote control device (page 6, line 12 of the English translation of DE 43 16 643). Knoche further teaches that the use of remote control facilitates diagnostic examination (page 2, lines 17-19 of the English translation of DE 43 16 643).

Knoche is evidence that one of ordinary workers in the art of IVUS would find a motivation or suggestion to use an infra-red remote control device in using the IVUS system of AAPA.

Therefore, it would have been obvious to an ordinary skill in the art at the time the invention was made to provide the IVUS system of AAPA with the voice recognition unit of Knoche in order to facilitate diagnostic examination remotely from the bed.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sliwa, Jr. et al. (US 5,465,724) teaches an ultrasonic probe for use with a remote ultrasonic imaging system. Adir (US 5,765,565) teaches an ultrasound system that includes a TV monitor remotely situated from a bed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Imam whose telephone number is 703-305-0028. The examiner can normally be reached on Mon. - Th., 8:00- 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on 703-308-3256. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-0758 for regular communications and 703-308-0758 for After Final communications.

Art Unit: 3737

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



Ali Imam
Examiner
Art Unit 3737

AMI
October 1, 2002